

**AMENDMENTS TO THE CLAIMS**

Claim 1. (currently amended) A system monitoring system comprising:

external monitoring means for monitoring the state of a controller in an apparatus to be monitored, the state being obtained when a control program stored in storage means in the apparatus controls, via an internal bus of the apparatus, said controller to operate; and

bus-access detection means for detecting, in real time, based on internal bus information, information on the accessing of said internal bus by said controller;  
said bus-access detection means being external to said controller;

wherein said information on the accessing of said internal bus by said controller is output to said external monitoring means with the timing of the accessing.

Claim 2. (currently amended) A system monitoring system according to Claim 1, further comprising execution address detection means for detecting execution address information of said external monitoring means in real time based on said internal bus information, said execution address detection means being external to said controller;  
wherein the execution address information is output to said external monitoring means with the timing of the accessing.

Claim 3. (original) A system monitoring system according to Claim 1, further comprising a display for displaying said information on the accessing of said internal bus by said controller.

Claim 4. (original) A system monitoring system according to Claim 2,  
further comprising display means for displaying said execution address information.

Claim 5. (original) A system monitoring system according to Claim 3,  
wherein said display means numerically displays data on said internal bus when latching  
the data.

Claim 6. (currently amended) A system monitoring method for monitoring,  
by external monitoring means, the state of a controller in an apparatus to be monitored, the  
state being obtained when a control program stored in storage means in the apparatus  
controls, via an internal bus of the apparatus, said controller to operate, said system  
monitoring method comprising the steps of:

using bus-access detection means to detect, in real time, based on internal  
bus information, information on the accessing of said internal bus by said  
monitoring means; said bus-access detection means being external to said  
controller; and

outputting said information on the accessing of said internal bus by said  
monitoring means to said external monitoring means with timing of the accessing.

Claim 7. (currently amended) A system monitoring method according to  
Claim 6, further comprising the steps of:

detecting, by execution address detection means, execution address

information of said external monitoring means in real time based on said internal bus information; said execution address detection means being external to said controller; and

outputting the execution address information to said external monitoring means with the timing of the accessing.

Claim 8. (original) A system monitoring method according to Claim 6, further comprising the step of displaying on display means said information on the accessing of said internal bus by said monitoring means.

Claim 9. (original) A system monitoring method according to Claim 7, further comprising the step of displaying on display means said execution address information.

Claim 10. (original) A system monitoring method according to Claim 8, further comprising the step of numerically displaying data on said internal bus when latching the data.